



Installation & Operating Manual

iBATT101



This page is intentionally left blank.

Document Number **334333** (See Last Page for Revision Details)

©2006 Extronics Limited. This document is Copyright Extronics limited.
Extronics reserve the right to change this manual and its contents without notice, the latest version applies.

Contents

1	Introduction.....	4
2	Safety Information and Notes	5
2.1	Storage of this Manual.....	5
2.2	List of Notes	5
3	Special Conditions for Safe Use.....	7
4	Installation and Set-to-work.....	8
4.1	Installation	8
4.2	Fitting the Batteries.....	9
4.3	Fitting the Cables.....	11
4.4	Setting to work.....	12
5	Intended Purpose Usage.....	13
5.1	Transportation and Storage.....	13
5.2	Authorized Persons	13
5.3	Cleaning and Maintenance.....	13
5.4	Safety Precautions	13
5.5	Cleaning and Maintenance Intervals	13
5.6	Aggressive substances and environments	14
5.7	Exposure to external stresses	14
5.8	Lead Acid Batteries	14
6	Technical Data	15
6.1	Specification	15
7	Warranty Information	16
8	Certification	17
8.1	Certification Label.....	17
8.2	ATEX Certificate	18
8.3	IECEx Certificate	22
8.4	EC Declaration of Conformity	29
9	Manual Revision.....	30

1 Introduction

The iBATT101 is an ATEX and IECEx approved wall mount stainless steel battery enclosure for use in Zone1 and Zone 2 hazardous areas. It is designed to be used in conjunction with the iUPS101 UPS system to provide an uninterruptible power supply. The iBATT101 can also be used independently providing the special conditions for safe use are applied as detailed on the ATEX / IECEx certificate.

When used in conjunction with the Ex 'e' certified charge protection circuit contained within the iUPS101/2 system, users are permitted to charge the 310Ah valve regulated lead acid batteries in a hazardous area. These batteries are maintenance free, and thanks to the temperature compensation circuitry within the iUPS101, they are charged within the manufacturers specified parameters regardless of environmental conditions.

2 Safety Information and Notes

2.1 Storage of this Manual

Keep this user manual safe and in the vicinity of the device. All persons who have to work on or with the device should be advised on where the manual is stored.

2.2 List of Notes

The notes supplied in this chapter provide information on the following.

- **Danger / Warning.**
 - Possible hazard to life or health.
- **Caution**
 - Possible damage to property.
- **Important**
 - Possible damage to enclosure, device or associated equipment.
- **Information**
 - Notes on the optimum use of the device

Warning	Installation to be by skilled electricians and instructed personnel in accordance with national legislation, including the relevant standards and, where applicable, in accordance with IEC 79.17 on electrical apparatus for explosive atmospheres.
----------------	---

Warning!	The iBATT101 must only be operated in Zone 1 and Zone 2 hazardous area. Refer to the ATEX certificate for further information.
-----------------	---

Warning!	If charging takes place in a hazardous area the charging circuits must meet the requirements of EN60079-0 and EN60079-7.
-----------------	---

Warning!	Any load connected to the iBATT101 must include a fuse rated no more than 300A in the supply line. If the fuse is located in a hazardous area it must be suitably certified.
-----------------	---

Warning!	If the batteries are to be disconnected in a hazardous area, then an appropriately certified means of isolation must be provided.
-----------------	--

Important	The batteries must not be subjected to mechanical shock.
------------------	---

Important	The technical data indicated on the iBATT101 ATEX rating plate, in this manual and the ATEX certificate must be observed at all times.
------------------	---

Important The ATEX rating label must be fitted at all times, if damaged it must be replaced immediately or the iBATT101 must be removed from service and the hazardous area.

Important Changes in the design and modifications to the equipment are not permitted.

Important The iBATT101 shall be operated as intended and only in an undamaged condition.

Important Only suitably rated loads may be connected to the iBATT101.

Caution This assembly may weigh up to 110Kg, therefore ensure the assembly is mounted using suitable fixtures.

Caution Never operate the iBATT101 unit outside its rated voltage, current & power as indicated in the specification or the safety of the unit may be impaired.

Caution Never exceed the maximum loading of the iBATT101 as stated in the specifications. Adequate protection such as a fuse / breaker must be fitted to connecting equipment to prevent exceeding maximum load.

Important For the installation, maintenance and cleaning of the units, it is absolutely necessary to observe the applicable regulations and provisions concerned with explosion protection (EN60079-0:2009, EN 60079-14:2008) as well as the Accident Prevention Regulations.

Important The iBATT101 must not be stored or operated outside of its rated temperature range as stated on the ATEX certificate.

Important! Only replacement batteries supplied by Extronics may be fitted as there are safety related tests that need to be performed on each battery.

Important! It is recommended the battery is installed with an appropriately certified isolator to allow easy disconnection from any connected load such as the iUPS101.

Warning! Batteries are only permitted to be connected in series. No parallel connection is allowed as this would invalidate the ATEX and IECEx certification.

3 Special Conditions for Safe Use

1. If charging takes place in a hazardous area, then the charging circuit must meet the requirements of EN 60079-7 and have its own appropriate ATEX certification. If constant current charging is applied, the maximum charging current must be limited to 15.4A
2. Any load connected to the batteries must include a fuse rated no more than 300A. If the fuse is located in a hazardous area it must be appropriately certified.
3. If the batteries are to be disconnected in a hazardous area, then an appropriately certified means of disconnection must be provided.
4. The batteries must not be subject to mechanical shock
5. Discharge of the batteries must be isolated when the voltage per cell drops below 1.6V

4 Installation and Set-to-work

4.1 Installation

The iBATT101 enclosure is supplied with up to 4x 2V 310Ah VRLA batteries.

The iBATT101 is a wall mount enclosure, and only permitted to be mounted in a vertical orientation – see fig 3.0.

The enclosure weighs approximately 20Kg, and each of the batteries weigh 22Kg so the appropriate health and safety requirements for lifting equipment must be taken to ensure safe installation.

Important! If replacing the batteries, only Energys SBS300 batteries that have been tested in accordance with BS EN60079-7 are permitted to be fitted in the iBATT101 enclosure.

Correct Vertical Installation:

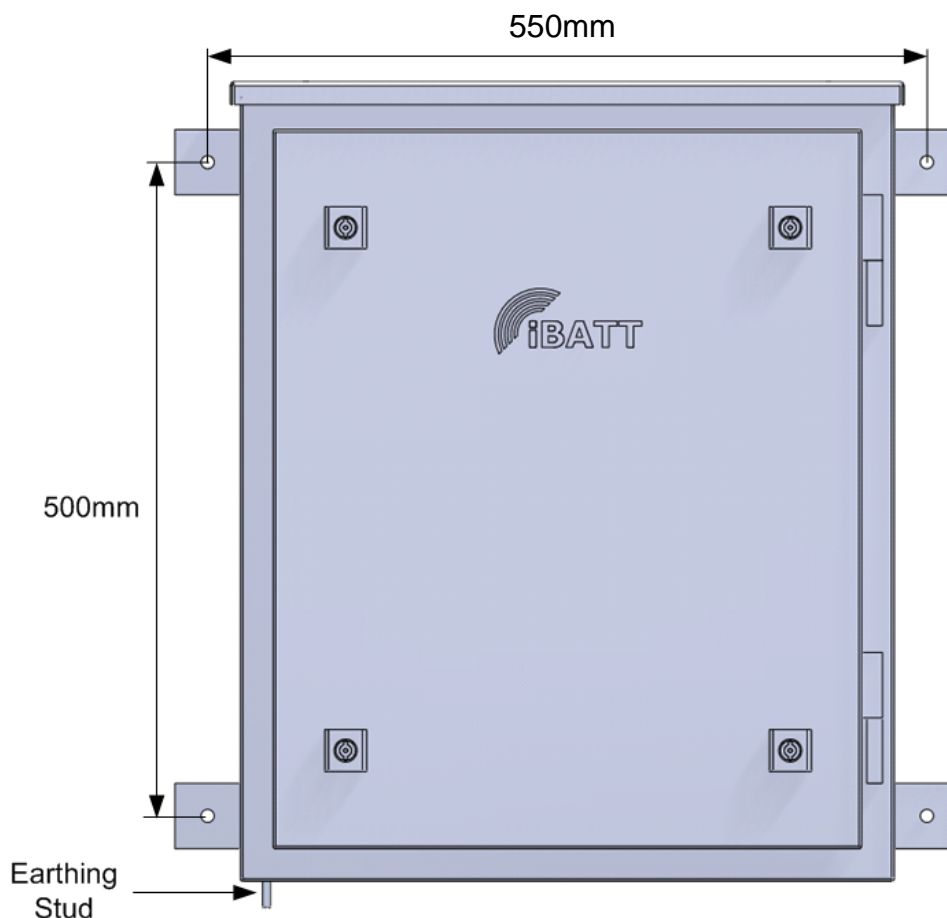


Fig 3.0

4.2 Fitting the Batteries

Once the enclosure is mounted, the batteries need to be installed and connected as per the diagrams below before the unit can be powered up.

Warning!	AT ALL TIMES TAKE GREAT CARE NOT TO SHORT THE LEAD ACID BATTERY TERMINALS, OR SUBJECT THE BATTERIES TO ANY MECHANICAL SHOCK.
-----------------	---

Warning!	Batteries are only permitted to be connected in series. No parallel connection is allowed as this would invalidate the ATEX and IECEx certification.
-----------------	---

The battery enclosure will be supplied empty with the battery retaining brackets fitted as shown in the picture below:



Remove the two battery brackets by removing the fixing screws shown in the diagram below:



The battery and wiring arrangement for an enclosure with four cells fitted is shown below:



4.3 Fitting the Cables

Warning!	Installation to be by skilled electricians and instructed personnel in accordance with national legislation, including the relevant standards and, where applicable, in accordance with IEC 79.17 on electrical apparatus for explosive atmospheres.
-----------------	--

Note	It is recommended the battery is installed with an appropriately certified isolator to allow easy disconnection from any connected load such as the iUPS101.
-------------	--

Entries to the enclosure for cable glands are threaded type. Any Entries that are not used must be blanked off with a suitably certified Ex 'e' blanking plug.

Connections are made directly to the batteries as shown in the pictures above. The cables should be secured using the supplied M8 bolts and a spring washers to prevent loosening during service.

The iBATT101 is supplied with:

3x Battery link cable
8x M8 Fixings for cable connection to batteries
8x Terminal insulating boots

If the batteries are to be disconnected in a hazardous area, then an appropriately certified means of isolation must be provided. It is recommended the battery is installed with an appropriately certified isolator to allow easy disconnection from any connected load such as the iUPS101.

4.4 Setting to work

The iBATT101 is designed to be used in association with the iUPS101 Zone 1 UPS system, as this provides a certified control circuit for safe charging of the batteries. Once all cables are connected correctly and inspected the enclosure door should be closed and locked ready for normal operation.

The outputs of several iBATT101 enclosures may be connected together in series to give a higher voltage if desired. The enclosures must not be connected in parallel or this will invalidate the ATEX / IECEx certification.

Important!	Ensure the door is secure, correct cable glands are fitted and the unit device correctly wired and earthed.
-------------------	--

Important!	Ensure that the door gasket is clean and undamaged before closing the door.
-------------------	--

5 Intended Purpose Usage

Important	Before setting the units to work, read the technical documentation carefully.
------------------	--

Important	The latest version of the technical documentation or the corresponding technical supplements is valid in each case.
------------------	--

The iBATT101 is built using modern components and is extremely reliable in operation; however it must only be used for its intended purpose. Please note that the intended purpose also includes compliance with the instructions issued by the manufacturer for installation, setting up and service.

Any other use is regarded as conflicting with the intended purpose. The manufacturer is not liable for any subsequent damage resulting from such inadmissible use. The user bears the sole risk in such cases.

5.1 Transportation and Storage

All iBATT101 devices must be so transported and stored that they are not subjected to any excessive mechanical stresses.

5.2 Authorized Persons

Only persons trained for the purpose are authorized to handle the iBATT101; they must be familiar with the unit and must be aware of the regulation and provisions required for explosion protection as well as the relevant accident prevention regulations.

5.3 Cleaning and Maintenance

The iBATT101 has a ventilation filter fitted to prevent the ingress of dust and water. These filters should be inspected periodically, and replaced / cleaned as necessary.

5.4 Safety Precautions

Important	For the installation, maintenance and cleaning of the units, it is absolutely necessary to observe the applicable regulations and provisions concerned with explosion protection (EN 50014, EN 60079-14:2003) as well as the Accident Prevention Regulations.
------------------	--

5.5 Cleaning and Maintenance Intervals

The cleaning intervals depend on the environment where the system is installed.

5.6 Aggressive substances and environments

The iBATT101 is not designed to come into contact with aggressive substances or environments, please be aware that additional protection may be required.

5.7 Exposure to external stresses

The iBATT101 is not designed to be subjected to excessive stresses e.g. vibration, heat, impact. Additional protection is required to protect against these external stresses.

The iBATT101 will require additional protection if it is installed in a location where it may be subjected to damage.

5.8 Lead Acid Batteries

Important! Only replacement batteries supplied by Extronics may be fitted as there are safety related tests that need to be performed on each battery.

The rechargeable valve regulated lead acid batteries contained within the iBATT101 have an operational life of up to 10 years dependant on charge/discharge cycles and ambient temperature conditions. Replacement batteries may only be fitted in the field by the customer under safe area conditions and by skilled electricians who are appropriately certified. Please note it is essential that this work is carried out by a competent person and care must be taken not to short the +/- terminals of the batteries.

6 Technical Data

6.1 Specification

Input / Output Voltage	8Vdc
Maximum Discharge Current	300A
Enclosure Material	316 Stainless Steel
Weight	Approximately 110 Kg
Enclosure Ingress Protection	IP45*
ATEX / IECEx Ingress Protection	IP43
Environmental	-20°C to +50°C
Certification	Ex II 2G Ex e IIC T6 Gb
ATEX Certificate	Baseefa11ATEX0191X
IECEx Certificate	IECEx BAS 11.0097X
Dimensions	610mm(H), 515mm(W), 370mm(D)

*ATEX ingress protection is IP43 as the filter material may degrade over long periods of time if not inspected. Providing regular inspection and replacement of this filter material is carried out, then the enclosure protection will remain as IP45.

7 Warranty Information

The Customer shall carry out a thorough inspection of the delivered project or equipment with 21 days of delivery and shall give immediate written notification to the Company of any omissions, defects or faults.

The Company warrants that the project or equipment delivered shall accord with the Quotation or Pricing Schedule and related Company specifications, but it does not warrant its fitness for any other purpose.




Extronics will make good, by repair or at Extronics option by the supply of a replacement, defects which, under proper use in accordance with specifications and manufacturer's instructions, appear in the goods within a period of twelve calendar months after the goods have been delivered and arise solely from faulty design, materials or workmanship, provided always that defective parts have been returned to Extronics if Extronics shall have so required.

The warranty of any goods is based upon a return to Extronics factory (Return to Base Warranty) which will be at the Customers cost. The repaired or new parts will be delivered by Extronics carriage paid. If you allege that goods are totally unfit for their purpose they must be returned within 7 days of receipt. Site Warranty is expressly excluded from these terms and conditions unless agreement is made in writing between the parties it.

Extronics liability under this clause shall be in lieu of any warranty or condition implied by law as to the quality or fitness for any particular purpose of the goods, and save as provided in this clause Extronics shall not be under any liability, whether in contract, or otherwise, in respect of defects in goods delivered or for any injury other (than personal injury caused by Extronics negligence as defined in Section 1 of the Unfair Contract Terms Act, 1977), damage or loss resulting from such defects or from any work done in connection therewith, provided however that nothing in this clause shall operate to exclude any warranty or condition implied by law as to the quality of the goods in the event that the goods when sold by you or when sold by any person or persons to whom you may sell the goods shall become the subject of a consumer sale as defined in the Supply of Goods (Implied Terms) Act, 1973 except that any claim under such warranty or condition shall have arisen from any act or omission by you or by any person or persons selling the goods by way of a consumer sale.

8 Certification

8.1 Certification Label

 ExTRONICS		iBATT101	
Date :		Serial # :	
 0518			
-20°C ≤ Ta ≤ +50°C		IP43 II 2 G Ex e IIC T6 Gb Baseefa11ATEX0191X IECEX BAS11.0097X	
RATED VOLTAGE: 8V	RATED CURRENT: 300A	CELL CAPACITY: 310Ah	
CELL TYPE: ENERSYS SBS300		NUMBER OF CELLS: 4	
<p align="center"> WARNING-REFER TO THE INSTRUCTION MANUAL FOR BATTERY CHARGING </p> <p> Extronics Ltd, 1Dalton Way, Midpoint 18, Middlewich, Cheshire CW10 0HU Tel: +44(0) 845 277 5000 Fax: +44 (0) 845 277 4000 E-mail: Info@extronics.com Web: www.extronics.com </p>			

8.2 ATEX Certificate

Certificate Number
Baseefa11ATEX0191X



Issued 25th August 2011
Page 1 of 2

- 1 **EC - TYPE EXAMINATION CERTIFICATE**
- 2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres
Directive 94/9/EC**
- 3 EC - Type Examination Certificate Number: **Baseefa11ATEX0191X**
- 4 Equipment or Protective System: **Type iBATT100 Battery Container**
- 5 Manufacturer: **Extronics Limited**
- 6 Address: **1 Dalton Way, Midpoint 18, Middlewich, Cheshire, CW10 0HU**
- 7 This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- 8 Baseefa, Notified Body number 1180, in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.
The examination and test results are recorded in confidential Report No. **GB/BAS/ExTR11.0189/00**
- 9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN 60079-0: 2009 and EN 60079-7: 2007
except in respect of those requirements listed at item 18 of the Schedule.
- 10 If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.
- 11 This EC - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified equipment or protective system. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.
- 12 The marking of the equipment or protective system shall include the following :
Ⓔ II 2G Ex e IIC T6 -20°C ≤ T_a ≤ 55°C Gb IP23
This certificate may only be reproduced in its entirety, without any change, schedule included.

Baseefa Customer Reference No. **3700**

Project File No. **11/0072**

This certificate is granted subject to the general terms and conditions of Baseefa. It does not necessarily indicate that the equipment may be used in particular industries or circumstances.

Baseefa
Rockhead Business Park, Staden Lane,
Buxton, Derbyshire SK17 9RZ
Telephone +44 (0) 1298 766600 Fax +44 (0) 1298 766601
e-mail info@baseefa.com web site www.baseefa.com
Baseefa is a trading name of Baseefa Ltd
Registered in England No. 4305578. Registered address as above.

R S SINCLAIR
DIRECTOR
On behalf of
Baseefa

Certificate Number
Baseefa11ATEX0191X



Issued 25th August 2011
Page 2 of 2

13

Schedule

14

Certificate Number Baseefa11ATEX0191X

15 Description of Equipment or Protective System

The Type iBATT100 Battery Container consists of a fabricated stainless steel or mild steel enclosure 612mm by 515mm by 371mm with a hinged front cover secured by 4 x ½ turn locks. There are labyrinth vents with foam mesh on the top and bottom side of the enclosure. The inner surface of the enclosure is covered with an epoxy spray coating

The enclosure contains two 12 volt lead acid batteries connected in series with a rated capacity of 135Ah. The maximum charging current is 40.5A and the maximum discharge current is 160A. The batteries sit horizontally on shelves and are clamped in place.

16 Report Number

GB/BAS/ExTR11.0189/00

17 Special Conditions for Safe Use

1. If charging takes place within the hazardous area the charging circuit must meet the requirements of EN 60079-7 and have its own appropriate ATEX certification. The maximum charging current must be limited to 40.5A.
2. Any load connected to these batteries must include a 160A fuse in the supply line. If the fuse is located in a hazardous area it must be appropriately certified.
3. If the batteries are to be disconnected in a hazardous area then an appropriately certified means of isolation must be provided.
4. These batteries must not be subjected to mechanical shock.

18 Essential Health and Safety Requirements

All relevant Essential Health and Safety Requirements are covered by the standards listed at item 9.

19 Drawings and Documents

Number	Sheet	Issue	Date	Description
330521	1	REL01	25/8/11	General arrangement
331444	1	01	12/8/11	Label

These drawings are common to and held with IECEx BAS11.0097X

Certificate Number
Baseefa11ATEX0191X/1



Issued 28th August 2012
Page 1 of 3

1 **SUPPLEMENTARY EC - TYPE EXAMINATION CERTIFICATE**

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres**
Directive 94/9/EC

3 Supplementary EC - Type Examination Certificate Number: **Baseefa11ATEX0191X/1**

4 Equipment or Protective System: **Type iBATT100 Battery Container**

5 Manufacturer: **Extronics Limited**

6 Address: **1 Dalton Way, Midpoint 18, Middlewich, Cheshire, CW10 0HU**

7 This supplementary certificate extends EC – Type Examination Certificate No. Baseefa11ATEX0191X to apply to equipment or protective systems designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

This supplementary certificate shall be held with the original certificate.


This certificate may only be reproduced in its entirety, without any change, schedule included.

Baseefa Customer Reference No. 3700

Project File No. 12/0409

This certificate is granted subject to the general terms and conditions of Baseefa. It does not necessarily indicate that the equipment may be used in particular industries or circumstances.

Baseefa
Rockhead Business Park, Staden Lane,
Buxton, Derbyshire SK17 9RZ
Telephone +44 (0) 1298 766600 Fax +44 (0) 1298 766601
e-mail info@baseefa.com web site www.baseefa.com
Baseefa is a trading name of Baseefa Ltd
Registered in England No. 4305578. Registered address as above.


R S SINCLAIR
DIRECTOR
On behalf of
Baseefa

Certificate Number
Baseefa11ATEX0191X/1



Issued 28th August 2012
Page 2 of 3

13

Schedule

14

Certificate Number Baseefa11ATEX0191X/1

15

Description of the variation to the Equipment or Protective System

Variation 1.1

To allow the use of up to two FIAMM Type 12FLB540 batteries in each enclosure. These may be used to replace FIAMM Type 12FLB500 batteries covered by the original certification without changing the certification label.

Variation 1.2

To allow the use of up to four 2 volt EnerSys Type SBS300 batteries in each enclosure with a rated capacity of 310Ah. The designation of the product then becomes a **Type iBATT101 Battery Container**. Constant voltage charging is recommended but if constant current charging is applied the maximum charging current is 15.4A. The maximum discharge current is 300A. Specific Conditions of use on the original certificate do not apply to this configuration and are replaced by those listed at section 17 of this certificate.

The ambient temperature range for the Type iBATT101 Battery Container is -20°C to +50°C.

Variation 1.3

The bottom vent of the enclosure is no longer needed resulting in an increased IP rating of IP43

16 Report Number

GB/BAS/ExTR12.0227/00

17 Specific Conditions of Use

Those listed previously still apply to the **iBATT100** except that number 2 is modified as below:

2. Any load connected to these batteries must include a fuse rated no more than 160A in the supply line. If the fuse is located in a hazardous area it must be appropriately certified.

For the **iBATT101** the following apply:

1. If charging takes place within the hazardous area the charging circuit must meet the requirements of EN 60079-7 and have its own appropriate ATEX certification. If constant current charging is applied the maximum charging current must be limited to 15.4A.
2. Any load connected to these batteries must include a fuse rated no more than 300A in the supply line. If the fuse is located in a hazardous area it must be appropriately certified.
3. If the batteries are to be disconnected in a hazardous area then an appropriately certified means of isolation must be provided.
4. These batteries must not be subjected to mechanical shock.
5. Discharge of the SBS300 batteries must be isolated when the voltage per cell drops below 1.6V.

18 Essential Health and Safety Requirements

Compliance with the Essential Health and Safety Requirements is not affected by this variation.

Certificate Number
Baseefa11ATEX0191X/1






Issued 28th August 2012
Page 3 of 3

19 Drawings and Documents

Number	Sheet	Issue	Date	Description
330521	1	REL02	16/8/12	General arrangement
331444	1	02	16/8/12	Label

These drawings are common to and held with IECEx BAS11.0097X

8.3 IECEx Certificate

 <h2 style="text-align: center;">IECEx Certificate of Conformity</h2>	
INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres <small>for rules and details of the IECEx Scheme visit www.iecex.com</small>	
Certificate No.:	IECEx BAS 11.0097X
Issue No.:	0
Status:	Current
Date of Issue:	2011-08-25
Applicant:	Extronics Limited 1 Dalton Way Midpoint 18 Middlewich Cheshire CW10 0HU United Kingdom
Electrical Apparatus:	Type iBATT100 Battery Container
Optional accessory:	
Type of Protection:	Increased safety
Marking:	Ex e IIC T6 -20°C ≤ Ta ≤ 55°C GbIP23
Approved for issue on behalf of the IECEx Certification Body:	R S Sinclair
Position:	Managing Director
Signature: (for printed version)	
Date:	25-8-11
1. This certificate and schedule may only be reproduced in full. 2. This certificate is not transferable and remains the property of the issuing body. 3. The Status and authenticity of this certificate may be verified by visiting the Official IECEx Website.	
Certificate issued by: <div style="display: flex; justify-content: space-between; align-items: center;"> <div> Baseefa Rockhead Business Park Staden Lane Buxton Derbyshire SK17 9RZ United Kingdom </div> <div>  </div> </div>	



IECEx Certificate of Conformity

Certificate No.: IECEx BAS 11.0097X

Date of Issue: 2011-08-25

Issue No.: 0

Page 2 of 3

Manufacturer: **Extronics Limited**
1 Dalton Way
Midpoint 18
Middlewich
Cheshire
CW10 0HU
United Kingdom

Manufacturing location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2007-10 Explosive atmospheres - Part 0: Equipment - General requirements
Edition: 5

IEC 60079-7 : 2006-07 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition: 4

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:

GB/BAS/ExTR11.0189/00

Quality Assessment Report:

GB/SIR/QAR08.0025/02



IECEx Certificate of Conformity

Certificate No.: IECEx BAS 11.0097X

Date of Issue: 2011-08-25

Issue No.: 0

Page 3 of 3

Schedule

EQUIPMENT:


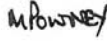
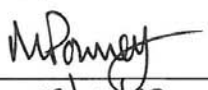
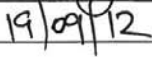

Equipment and systems covered by this certificate are as follows:

The Type iBATT100 Battery Container consists of a fabricated stainless steel or mild steel enclosure 612mm by 515mm by 371mm with a hinged front cover secured by 4 x ½ turn locks. There are labyrinth vents with foam mesh on the top and bottom side of the enclosure. The inner surface of the enclosure is covered with an epoxy spray coating

The enclosure contains two 12 volt lead acid batteries connected in series with a rated capacity of 135Ah. The maximum charging current is 40.5A and the maximum discharge current is 160A. The batteries sit horizontally on shelves and are clamped in place.

CONDITIONS OF CERTIFICATION: YES as shown below:

1. If charging takes place within the hazardous area the charging circuit must meet the requirements of IEC 60079-7 and have its own appropriate IECEx certification. The maximum charging current must be limited to 40.5A.
2. Any load connected to these batteries must include a 160A fuse in the supply line. If the fuse is located in a hazardous area it must be appropriately certified.
3. If the batteries are to be disconnected in a hazardous area then an appropriately certified means of isolation must be provided.
4. These batteries must not be subjected to mechanical shock.

		<h1>IECEX Certificate of Conformity</h1>	
<p align="center">INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres <small>for rules and details of the IECEx Scheme visit www.iecex.com</small></p>			
Certificate No.:	IECEX BAS 11.0097X	Issue No.:1	Certificate history: Issue No. 1 (2012-9-12) Issue No. 0 (2011-8-25)
Status:	Current		
Date of Issue:	2012-09-12	Page 1 of 4	
Applicant:	Extronics Limited 1 Dalton Way Midpoint 18 Middlewich Cheshire CW10 0HU United Kingdom		
Electrical Apparatus:	Type iBATT100 Battery Container		
Optional accessory:			
Type of Protection:	Increased safety		
Marking:	Ex e IIC T6 -20°C ≤ Ta ≤ 55°C Gb IP43		
Approved for issue on behalf of the IECEx Certification Body:	R S Sinclair 		
Position:	General Manager		
Signature: (for printed version)			
Date:			
1. This certificate and schedule may only be reproduced in full. 2. This certificate is not transferable and remains the property of the issuing body. 3. The Status and authenticity of this certificate may be verified by visiting the Official IECEx Website.			
Certificate issued by: <div style="display: flex; justify-content: space-between; align-items: center;"> <div> Baseefa Rockhead Business Park Staden Lane Buxton Derbyshire SK17 9RZ United Kingdom </div> <div>  </div> </div>			



IECEx Certificate of Conformity

Certificate No.: IECEx BAS 11.0097X

Date of Issue: 2012-09-12

Issue No.: 1

Page 2 of 4

Manufacturer: **Extronics Limited**
1 Dalton Way
Midpoint 18
Middlewich
Cheshire
CW10 0HU
United Kingdom

Manufacturing location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2007-10 Explosive atmospheres - Part 0: Equipment - General requirements
Edition: 5

IEC 60079-7 : 2006-07 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition: 4

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:

GB/BAS/ExTR11.0189/00

GB/BAS/ExTR12.0227/00

Quality Assessment Report:

GB/SIR/QAR08.0025/03



IECEx Certificate of Conformity

Certificate No.: IECEx BAS 11.0097X

Date of Issue: 2012-09-12

Issue No.: 1

Page 3 of 4

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The Type iBATT100 Battery Container consists of a fabricated stainless steel or mild steel enclosure 612mm by 515mm by 371mm with a hinged front cover secured by 4 x ½ turn locks. There are labyrinth vents with foam mesh on the top and bottom side of the enclosure. The inner surface of the enclosure is covered with an epoxy spray coating

The enclosure contains two 12 volt lead acid batteries connected in series with a rated capacity of 135Ah. The maximum charging current is 40.5A and the maximum discharge current is 160A. The batteries sit horizontally on shelves and are clamped in place.

CONDITIONS OF CERTIFICATION: YES as shown below:

1. If charging takes place within the hazardous area the charging circuit must meet the requirements of IEC 60079-7 and have its own appropriate IECEx certification. The maximum charging current must be limited to 40.5A.
2. Any load connected to these batteries must include a fuse rated no more than 160A in the supply line. If the fuse is located in a hazardous area it must be appropriately certified.
3. If the batteries are to be disconnected in a hazardous area then an appropriately certified means of isolation must be provided.
4. These batteries must not be subjected to mechanical shock.
5. If charging takes place in a hazardous area the charging circuit must meet the requirements of IEC 60079-7 and have its own appropriate IECEx certification. Constant voltage charging is recommended but if constant current charging is applied the maximum charging current is 15.4A.
6. Any load connected to these batteries must include a fuse rated no more than 300A in the supply line. If the fuse is located in a hazardous area it must be appropriately certified.
7. Discharge of the SBS300 batteries must be isolated when the voltage per cell drops below 1.6V.



IECEx Certificate of Conformity

Certificate No.: IECEx BAS 11.0097X

Date of Issue: 2012-09-12

Issue No.: 1

Page 4 of 4

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

Variation 1.1

To allow the use of up to two FIAMM Type 12FLB540 batteries in each enclosure. These may be used to replace FIAMM Type 12FLB500 batteries covered by the original certification without changing the certification label. Condition of Certification 2 is modified to allow any fuse up to the specified value to be used.

Variation 1.2

To allow the use of up to four 2 volt Enersys Type SBS300 batteries in each enclosure with a rated capacity of 310Ah. The designation of the product then becomes a **Type iBATT101 Battery Container**. Constant voltage charging is recommended but if constant current charging is applied the maximum charging current is 15.4A. The maximum discharge current is 300A.

Variation 1.3

The bottom vent in the enclosure is no longer needed resulting in an increased IP rating of IP43.

Conditions of certification 1 and 2 on the original certificate do not apply to this configuration and are replaced by Conditions of Certification 5 and 6.

Condition of certification 7 applies only to the Type iBATT101 Battery Container.

The ambient temperature range for the Type iBATT101 Battery Container is -20°C to +50°C.

ExTR: GB/BAS/ExTR12.0227/00

File Reference: 12/0409

8.4 EC Declaration of Conformity



Hazardous Area Specialists

EC Declaration of Conformity

Extronics Ltd, 1 Dalton Way, Midpoint 18, Middlewich, Cheshire, CW10 0HU, UK

Declare under sole responsibility that the product,

iBATT100 / iBATT101

To which this declaration relates is in accordance with the provision of the following directives

94/9/EC Equipment and protective systems intended for use in potentially explosive atmospheres.

EC type Examination Certificate

[Baseefa11ATEX0191X]

Provisions of Directive fulfilled by the equipment

[Ex II 2 G Ex e IIC T6 Gb]

Notified Body for EC Type Examination

[Baseefa, Rockhead Bus. Park, SK17 9RZ]

Notified Body for production

SIRA, 0518, Sira Chester UK

And is in conformity with the following standards or other nominative documents

EN60079-0:2006	Electrical apparatus for potentially explosive gas atmospheres – General requirements
EN60079-0:2009	Explosive atmospheres - Part 0: Equipment - General Requirements
EN60079-7:2003	Electrical apparatus for explosive gas atmospheres – Increased safety 'e'
EN60079-7:2007	Explosive atmospheres - Part 7: Equipment protection by increased safety 'e'
EN60529:1991	Degrees of protection provided by enclosures (IP Code)

Signed

Ben Seaby

Ben Seaby
Senior Development Engineer

8th November 2012

9 Manual Revision

Revision	Description	Date	By
01	First Issue	14/12/2012	A. Peek
02	Supplied parts list amended	29/08/2013	A.Peek